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Introductory lecture
upon the method of studying
Medicine.

Delivd nov 4. 1811.

Gentlemen!

It is now more than half a Century ~~fifty~~ ~~years~~ since I began the study, ~~of medicine~~, and upwards of forty years since I entered upon the practice of ~~the~~ medicine. During these periods I have had frequent opportunities of observing the influence of the different modes of acquiring a knowledge of medicine upon its practice in a great number of physicians. The result of these observations shall now be laid before you as the subject of an introductory lecture. Before I enter upon the detail of the Studies which are proper to to qualify a person to practice medicine, and the order in which they should be pursued,

I shall remark that I consider you as prepared for the study of medicine by a previous acquaintance with all the branches of knowledge mentioned in a former lecture, particularly with grammar, and languages, geography, mathematics, and natural philosophy; for without some knowledge of each of these you will unable to comprehend the different branches of the Science of medicine. After you enter upon the study of medicine you will find that these branches may be divided into two means and ends. To the former belong Anatomy, physiology, Chemistry, Natural history

and materia medica. The latter embrace the practice of medicine, surgery and mid=

=wifry. —

~~The study of~~ Anatomy should form the corner stone of a medical education. a minute knowledge of it is indispensably necessary to constitute the physician, the Surgeon and the man midwife. ~~It is~~ Some parts of this Science are more important than others but every portion of it should be committed to memory by the Student of medicine. It is true, ~~they~~ many of them will pass out of his mind when he enters into business, but a general knowledge of them will remain, as to prevent his committing mistakes of ignorance in his practice. Thus an acquaintance with Anatomy should

be acquired in three ways - 1st by attending
public Demonstrations and lectures upon the ~~of the compound parts of the body~~ 2dly by dissecting dead bodies,
and 3dly by making representations in wax,
or by Drawings of ~~parts~~ the different
parts of the body. Do not expect Gentlemen
to become Anatomists by ~~by~~ in any other
way than by those which have been men-
-tioned. Books convey an imperfect
knowledge of the human body, ~~table~~
even the bodies of beasts are insufficient
for this purpose. — ~~They~~ the Chairs then,
Gentlemen of the Profession of Anatomy,-
~~sit down~~ pass hours and days in this
dissecting room, - ~~with the body~~ call upon ~~part of~~ the
human ~~body~~ familiar ~~to~~ the sense of
touch to assist the eye in remembering
every part of the human body, - ac-
-quire a familiarity with the dissecting

knife, ~~could~~ facility in ~~using it~~. It will
to
serve ~~to~~ ~~keep~~ ~~away~~ ~~the~~ prepare you for
cutting living flesh by wearing away the
repugnance
natural ~~sensibility~~ of the human heart to
such an employment, and it will ~~enable~~
impart dexterity to your hand in ~~surgical~~
performing surgical operations. Dissections
in wax and Drawings
~~of~~ ~~and~~ ~~preparations~~ of the ~~viscera~~ ~~blood vessels~~,
~~and~~ ~~of~~ ~~all~~ ~~the~~ different ~~bodies~~ parts of the
body will impress them more deeply
upon your memories. ~~—~~ They will
serve further ~~to~~ by a glance of your
eye to review your knowledge of these parts
when you enter into practice, and when
they cease to be useful ~~to you~~, you will
view them with pleasure as the ornaments
of your youthful taste and ingenuity.

Connected with Anatomy, should be

the Study of Physiology, that is an explanation as far as it is practicable, of the uses of the different parts of the body. Simple Anatomy, or the nomenclature of bones, muscles, blood vessels, nerves and viscera may be compared to the alphabet. It is by means of Physiology that this alphabet is converted into a language which becomes the vehicle of ideas and principles, or to make use of another simile, Anatomy may be compared to the outlines of a portrait perfectly correct in its size and figure, while physiology resembles the hand that gives it its drapery & coun=tenance. What is there in the shape of the lungs or the heart capable of affording pleasure to a student of medicine when viewed in the thorax, or upon a table? In vain does the anatomist endeavour to fix his attention upon either of them by simply

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running thro various parts; — But when he
tells him you the lungs are the Channel into
which the stimulus of Air is poured in
Order to set the whole animal machine in
motion — that this air furnishes a principle
which enables the every part of the body to assume a capacity
of life, and that the lungs convey out of the
body, certain matter which if retained, would
bring on Disease and Death, you no
longer view he holds them with indifference.
The examins their Structure, not only with
his eye but with his hand, and you
incorporates the important uses that
have been assigned to them with their struc-
ture that he never forgets either of them.
The same remark applies

to the heart. Viewed simply with its auricles,
ventricles ~~and~~ valves and blood vessels, it has
nothing to recommend it to our notice;
but when contemplated as the principal
~~centre~~ agent in the circulation of the blood,
and thereby as the source of all the benefits
derived from the distribution of that fluid
to every part of the body, and still more,
when viewed as the seat of all
our social, domestic and moral sensations,
it becomes an object of immense
curiosity & we behold it with wonder and
delight. Time in vain attempts
to obliterate those ideas, for they occupy a place, not
~~for they are~~ only in our memories, but in our understan-
dings,

Though somewhat foreign to our Subject, it would be unjust to Physiology to pass over in silence the friendly influence it has had in all ages upon Religion. By unfolding the uses of the various ~~compooseet~~ parts of the body, it exhibits stronger marks of the wisdom, power & goodness of the Deity than are to be met with in any other of his material works. — This reverence for those divine Attributes of this is greatly encreased by the details of the faculties and operations of the mind, which now compose a part of modern Systems of physiology. — ;

and affections. The whole mind must perish, before
that knowledge can be completely obliterated
from it. —

I might go on and show further that
a physician
all the knowledge he retains of the Structure of every Other part of the
body, and all the pleasure he enjoys
in every period of his life,
from a review of it, is derived from a
recollection of their use. That this is the
evident
case is obvious from his so soon forgetting
the Structure of the brain. Even the
constituent
names of its different parts pass
and for this obvious reason,
out of his mind, the
is obvious. The no Uses have been as-
signed
yet been described to them. V

Next to Anatomy and Physiology, the
=nistry should engage the Attention of

a Student of Medicine. This Science is eminently useful in various Ways. In the first place it furnishes a physician with of the most powerful medicines, particularly with all the preparations of the metals, without which our profession would be useless or impotent in many of the most formidable diseases. 2ly It teaches him to administer them in such a way that their beneficial effects may not be defeated by decompositions whether in the mode of preparing them before they are taken, or After they are received into the Stomach, and lastly it furnishes him with facts and principles which enable him to explain several of the functions of the healthy body in health, and many of the

phaenomena which are exhibited by diseases.
To Chemistry we are indebted for an Antidote
to the Venereal Disease, - for one of the most
active remedies for the yellow fever, for the
most prompt emetics, for the most powerful purges, for the
most certain Diaphoretics - for our knowledge
of the causes of animal heat - of the Color of
the blood, and of the cause of irritability &
sensibility. in many useful remedies ~~probably~~
~~remain to be discovered, by it~~ as well as
many of the Phaenomina of the healthy &
morbid body probably remain to be discovered by it. ~~In~~ It is the
duty of a Cabinet of which we have been but a
small part of its rich and beautiful Con-
-tents. Cultivate this Science therefore gentle-
-men with assiduity & zeal. Study

its principles and imitate its experiments. Be not satisfied with a single Course of lectures upon it, and add to the instruction you will re= =ceive within these Walls, by reading all the most popular publications upon it.

With the Study of Chemistry should be associated the Study of natural history in which are included a description of animals, fossils and plants. It is impossible to be a physician without some knowledge of each of these Sciences. The history of ani= =mals both in their living and dead States, will en= =large your knowledge of physiology, and the Anatomy; from the history of fossils you will derive much an acquaintance with the native State of many of our medicines, and from

a knowledge of plants you will derive not
only many exellent medicines, but many
facts and analogies that will enable you
to explain several of the laws of the Animal
economy. Pursue these Studies Gentlemen
with ardor. ~~Imitate the~~ Adopt the zeal
Gentleman who has been appointed to teach
them in this University. Follow him in his
excursions to the neighbouring fields &
woods in quest of ~~objects to~~ plants to illustrate
the principles of the Science of botany. ~~Without~~
You will be amply repaid for ~~this~~ your labor
in these Studies, - ~~Labor did I say~~ - if that
employment deserve the name of labor in which
~~they are~~ such unbounded sources will
be opened to you of knowledge, pleasure, and
usefulness to mankind. —

Having ~~laid the foundation~~ made yourselves
acquainted with Chemistry & Natural histo-
-ry you will be prepared to pro-
-fit by the lectures upon the Materia Medica.
The Objects of this Science are the sensible qua-
-lities, preparations, Virtues and Doses of medicines. ~~This~~
~~is a very useful and important part of~~
~~the Science of Medicine~~. It includes further
not only what are commonly called medicines,
but the qualities and preparations, ~~and doses~~ of Aliments
and Drinks. Too much pains cannot be
taken in acquiring a knowledge of each
of them. They are the tools by which a
Physician builds up, and takes down, and builds up the
extremes of morbid ~~weakness~~ strength &
weakness in the human body. ~~The~~ The

Qualities and mode of preparing aliments &
Drinks So as to suit them to all the different
grades of acute and chronic diseases, should
command your closest attention. It will
be necessary for you to know not only in
general how they are made, but fre=
=quently to direct the mode of preparing
them so as to render them at the same
time pleasant and medicinal. So highly
do I appreciate this supposed humble
part of the education of a physician,
that I have sometimes wished it were
possible to place a young man in=
=tended for the profession of Medicine under the
direction of an able Cook for a few months before he
enters upon his studies. The
want of this knowledge thus practically

acquired, can only be obtained by frequent
Conversations with experienced housekeepers,
and ~~by~~ committing to ~~paper~~ memory, or
to paper all the Common formulas of the
Diet and Drinks of sick people. —

I have thus ~~given~~ enumerated those
branches of Medicine ~~Studies~~ which are necessary to qualify
a Student to enter upon the Study of the
practical Branches of our Science. They are
the means only of becoming a physician. ~~The~~
~~Object of the ends of those means are the~~
~~practice of physic, Surgery and midwifery.~~
A ~~Doctor~~ man may be a Virtuoso in
Anatomy, a Haller in physiology, a Davy in Chemistry & a Linnaeus
in Natural history, and yet be wholly
ignorant of the ~~practice~~ end of those means,
that is, the practice of physic, Surgery &

Midwifry. In many mistakes occur not only in medicine but in other Objects of human pursuit from confounding ~~the~~ means and ends. Thus money is not food nor clothing, ~~but the languages are not knowledge,~~ but the means only of procuring them. Thus languages are not knowledge, but the means only by which we acquire it. —

The practice of physic involves ~~with~~ it an acquaintance with the causes of diseases. These constitute what has been called patho=logy, or in other words the theory of medi=cine. By theory I understand a combination of facts arranged in a related order and viewed in dependance and cooperation with each other. In the inaugural lecture which I delivered to

may be compared to a

~~A~~ Theory ~~is to be~~ a rule which measures
facts, ~~and~~ to as ~~form~~ principles from
them; while facts may be compared to
a crucible ~~in~~ which analyses ~~do these~~ theories.
In this manner, they mutually ~~to~~ prove establish
the truths, or detect the errors of each other.

~~up~~ in the year 1791 upon entering upon
the duties of the Chair which I now occupy
in this University, I endeavored to show the
intimate and necessary connection between
theory and practice in Medicine. ~~I have~~ I
have not relaxed in a single tittle in the
~~have not adhered to~~ endeavor to hold the
opinions expressed in that
I have ~~which~~ I delivered
lecture. On the contrary I am more satisfied
than ever, that without theory or
~~observation and~~ reasoning in medicine, a
man cannot be a physician. I know it
is fashionable to ~~decry theory~~,
and to extol facts or what is commonly
called experience, at the expence of theory, but facts &
experience are as delusive in Medicine, as
theory is without facts without theory,
be compared to a tripod, the Science may
three feet of

It is only by both, that they can be
By conscious of their
made to
establish the truth, or detect the errors
of each other. —

which are Observation, experiment and reasoning, or theory. It cannot stand upon any one, nor yet upon any two of them, but United, they mutually support each other. It is true the progress of our Science has been retarded by many erroneous theories, but it is equally true it has been more retarded by erroneous Observations and fallacious experiments. V. I cannot better illustrate the truth of this remark than by mentioning the Advantages which our Science has derived from the labors of two men whose names are immortal in the history of medicine, I mean Dr Sydenham & Dr Johns Hunter. The former overthrew the theories of Ages by his faithful and amusate Descriptions of diseases, while the latter exposed the fallacy of the hundreds of supposed facts by

V But why do I plead for the Union of
theory and practice in medicine? — They
are already connected by an eternal, and
immutable law in the ~~minds~~ human
mind. ~~From~~ every effort to ~~separate~~ ~~them~~
is ~~to~~ has been as unsuccessful as ~~the~~ late attempts
of the Infidels to divide morals from Religion.

his theories, or in other words by his discovery
of the laws of the animal economy, and the
operation of medicines in the cure of this cases
Permit me to add further, that the physicians
who attempt to divide theory & practice,
aim at the same impossibility that the
Infidels have lately done, who have attempted
to divide morals from Religion. Theory &
practice are connected by an eternal and
immutable law in the human mind
"To think is to theorize" says Dr Darwin, and
where is the man who can renounce or
even for a moment, suspend, this operation
of his mental faculties? There never
was a physician who did not theorize
in spite of himself,
or that prescribed a Medicine without
a secret indication of Cure founded upon a
theory of some kind. —

of his lectures. As a proof that the ~~co-operation~~ ~~&~~ obvious means of theory consists only in its novelty, it will not be improper to add that the same Edinburgh physicians who were devoted to Dr Boerhaave's ~~co-operation~~ doctrines have equally attached ~~themselves~~ to Dr Cullen's, the theories of Hygeia, putrefaction, the healing powers of Nature, and the sedative operation of certain medicines.

In one of Moliere's comedies entitled the "Citizen turned Gentleman", a Citizen applies to a professor of Rhetoric to be taught the principles of language. The professor begins by dividing all Writings into Verse & prose, and then illustrates each of them by quotations; one from the poets, - and the other from the language of Common Conversation. The Citizen no sooner heard the illustration of

V But there is another instance of Self deception into which physicians who are opposed to theory insensibly glide without being conscious of it. It consists in hostility to such theories only as are new. This was exemplified in a remarkable manner in Edinburgh when Dr Cullen first taught that the proximate cause of diseases was to be sought for chiefly in the Solids. His brethren, who were devoted to the humoral pathology of Dr Boerhaave complained of his theorizing, and for a while treated his Opinions as the effusions of a wild & distempered imagination. The Doctor was not insensible of the inconsistency of their Charges against him, and availing himself of the simplicity of his principles, declared that there was more theory in one page of Vanswieten's Commentaries upon D.r Boerhaave's Aphorisms, than there was in a Dozen of his Lectures. As a proof that the odious name of theory consisted only in its novelty, it may not be improper to add, that the Imitators of those physicians in Edin.r who opposed Dr Cullen's theories now adhere ~~exclusively and~~ pertinaciously to them ~~to the exclusion of all distinction of Spasm, pneumatic,~~ ~~the healing power of Nature, and the sedative Operation~~ Of certain ~~Medicines~~ modern principles in medicine ~~as Sheet~~

the latter, than are he discovered that he was in
possession of the knowledge of it, and exercised in
the consciousness that he had been in the
habit of speaking and writing prose in every
part of his life. The same thing may be
said of those physicians who are the enemies
of theory. They are in the constant practice
of exercising it without knowing it every
time they prescribe for the cure of a dis=
=ease. —

V In defending theory Gentlemen I have admitted
many of them to be erroneous, but in doing so,
I have conceded more than was just, for most
of the theories that have existed in medicine
are nothing but a collection of supposed facts.
For example I shall illustrate the truth of this
remark by a few examples. Dr Boerhaave's
theory of fever is founded upon what he called

~~Thery~~ is not only natural & involuntary in the
minds of regular bred physicians, but even quacks
do homage to it, hence some redundant or acrid
humor is to be evacuated, or obtunded, some
fluid is to be restrained, or accelerated in its
course, or some part of the body is to be relax-
=ed, or strengthened in all their prescriptions.
~~turn back to 23~~.

morbific matter ~~and Lentor~~ in the blood.
~~and this, these are false facts if I may be~~
~~allowed the expression~~ This matter be supposed
was expelled in the sweats, and Sediment in the
Urine which take place in the Crisis of fevers.
~~Now~~ Now this is a false fact if I may be allow=
=d the expression, for the matter thus discharged
is nothing but one of the component parts of the
blood ~~was~~ thrown out of the body in consequence
of the restoration of natural action in the
capillary vessels of the skin, and in the blood
vessels of the kidneys. Again Dr. Cullen ~~places~~ in
his theory of fever places its proximate cause
in a Spasm in the extremities of the blood=
=vessels ~~of the skin~~ which terminate in
the Skin. Now ~~as~~ no such Spasm takes
place except during the Chilly fit of a

23.

V that I include among the false facts,
not only such as are deriv'd from Observa-
=tion, but likewise from experiments ~~of~~
made apparently with Care, & related with
~~great~~ seeming Candor. Of this, our periodical
constantly
publications ~~daily~~ furnish us with ~~notori=~~
^ ^
~~=ous~~ proofs ~~in~~ all the
modifying
~~=ous~~ ~~& propitious~~
branches of Medicine.

fevers, and in all those fevers which come on without a Chill, there is no Spasm any where. Once more, Dr Brown's theory of fever consists of a supposed debility in the blood vessels. Now this is a false fact, ~~the~~ = ~~=bility is only~~ for fever consists in most cases in preternatural ~~then~~ & morbid strength in the blood vessels, induced ~~only~~ by previous Debility. This is obvious not only to reason but to this sense of touch as I hope to prove to you hereafter. — I wish it to be remembered

I might thus go on and show that a hundred other supposed facts upon particular diseases have been called theories which are not entitled to that epithet. It is to be lamented that the errors and fluctuation of theories founded upon supposed facts, have exposed our

Science to the charge of Uncertainty, and
called even its usefulness in question. Of the
latter I shall say nothing at present. Of the
former I shall only remark that the
imperfection of Medicine has been mistaken
for its Uncertainty. The instances in
which physicians mistake a disease, or
form a wrong judgment of its issue in
life, or death are very few. In those diseases
which they are unable to cure, they still
discover the certainty of our Science by
predicting this fatal termination. Our inca-
=bility to cure all diseases is a proof only
of the imperfection of Medicine, but even this
imperfection is much less than it is suppo-
=sed to be as far as it depends upon a phy-
=sician, for few patients die of common

of our ignorance or of
V ~~should be made~~ used as proofs of the imperfection
of medicine which were probably never in-
-tended to be known and if known would
afford no no assistance in curing diseases.
For example - What benefit should
we derive from being able to ascertain the
whether in a disease in the lungs, its seat is
was in the right or left lobe, or whether its
a disease of the brain, it occupied the ~~the~~ its
centre or its margins? ~~The same disease which~~
~~does the~~ disease in all these parts is a Unit, ~~&~~
~~& these~~, and the remedies which cure them all
, are exactly the same. A knowledge of
cause of its precise seat, is no more necessary
part of the Science of medicine, than a know-
-ledge of the Chemical properties of Aliment
is necessary to enable it to nourish our
bodies.

diseases, in which this deaths may not be
traced to delays in applying for medical aid,
bad nursing, or disobedience to medical pre-
=scriptions. — But further - many things are
In admitting the imperfection of medicine,
we place it upon a footing with all other
Sciences. Even the Science of navigation is
still imperfect, and yet we do not upon
that account ~~Reject~~ Depreciate the ~~advantages derived~~
~~from~~ the Magnet, the Gyrodrant, and
light which the moon ~~has~~ has lately shed upon it.
~~Observations~~ of the few ships that are lost
at Sea, most of them are ~~the results~~ like
the losses of patients in ~~incurable~~ common diseases,
the result of ignorance or Carelessness. They
prove the imperfection only, not the Uncer-
=tainty of navigation.

I return from this defence of
theory in medicine, to take notice, that

these are three methods of studying the principles and practice of ~~medicine~~ physic. These are, by means of lectures, by reading, and by attending upon ~~the~~ ~~sick~~ public or private practice.

The mode of communicating knowledge by means of lectures is very ancient. Zeno taught from his porch, Diogenes from his tub, and the Peripetaticks in their morning and evening walks. In was in this way chiefly that knowledge was communicated in ~~Greece~~ ~~and at Athens and Rome~~ before the discovery of the art of printing. This noble invention has opened in a degree, but has not superseded the necessity of oral instruction in our Schools of Science. Lectures ~~continue~~ arrange ~~the~~ discoveries of ~~every~~ ~~year collected~~, and facts and opinions in ~~a~~ ~~manner~~ ~~arranged in such a manner~~ as to suggest Order and

v Of this, we have a ~~xxxx~~ striking proof
in very old people, who are sometimes unable
to recollect their friends, and in some
instances ~~have~~ have ~~will this easy know~~
~~large~~ even their Children when they meet
them, until they hear them speak.
and so by

method in ~~direct~~, the inquiries of a student, and ~~and they~~
contain much details of the discoveries and
improvements that are made ~~speedily~~ in
every part of the world as to save him an
immence expense of time & the knowledge acquired
in this way ~~increases~~ makes a deeper impression upon the mind
that ~~the learn~~ that which is obtained by
silent reading. This ~~is principle~~, depends ~~not~~
~~to~~ ~~the~~ ~~greater fidelity of our ears~~ than of
~~our eyes in fact~~ and that for the obvious
reason knowledge penetrates deeper into
it when taken in by ~~the ears than~~
~~the learned than when the eyes~~
~~upon the eyes and ears~~ ~~only by~~ the ears than upon
the eyes in retaining knowledge; ~~but~~ upon
the assistance the memory derives from
the associating what is taught with
the voice, and manner of the Speaker.

Great as the advantages of oral instruction
are in teaching some branches of Science,
they ~~so~~ are very much limited in teaching
the practice of Physic. In a single Course
of lectures it is not possible to collect, and
deliver a hundredth part of all that a Physi=
=cian ought to know of the causes, Symp=
=toms and remedies of diseases. There are besides
many things in this branch of Medicine
that ought to be known that cannot
be taught from the incompetency of lan=
=guage for that purpose. ~~In what~~ where
shall we find words that are capable of
establishing a correct relationship between
the different states of the pulse, of the Countenance and
of the tones of Voice, and ~~the~~ ideas of them
in the mind of a Student of medicine?

V and the memories of other people, our
own, and live by a kind of vicarious ex-
=istence whole Centuries in the Course of a
single life.

To ~~aid~~ supply the Deficiency of lectures in teaching the practice of physic, recourse should be had ~~to~~ ~~lectures~~ 2 lys to books. Here we meet with ~~histories~~ the results of the observations and reflections of physicians in different ages & countries, and thereby supply the want of individual experience. By means of this resource for knowledge we make the ~~multiplying~~ eyes, V ~~ears hands~~ ~~ears~~ ~~multiplying ears~~ with all that can be said in favor of ~~books~~ ~~clear~~. But reading books, they are imperfect ~~fact~~ means of teaching the practice of physic. ~~Many~~ Like lectures, they are x incapable, from the poverty of language of conveying ~~to be~~ acquired only by observation. certain ideas ~~that~~ are ~~suggested by~~ ~~diseases~~. Many symptoms are ~~they are~~ omitted in their histories of diseases, and often ~~incorrect from~~ accidental or designed, & is seldom ~~had~~ ^ in them to the grade or stage of the disease in which ~~Rarely~~ ~~where~~ ~~this~~ ~~not the case~~ they are remedies are prescribed, and even when this is not the case, they are seldom capable of directing the practice of a physician in any other country than

that in which they were written. ~~Like that~~

In support of ~~the assertion~~ the Correctness of these remarks
I shall select ~~from many~~ but two ~~instances~~
proofs from the great
proofs from among many hundred
Cases recorded by Parker ~~and others~~. many
hundred ~~proofs~~ from which might be
additional mentioned. There is not a
single history of madness extant in which
it is not distinguished from delirium, by
a natural pulse and the absence of fever.
Now this is so far from being true, that
a febrile ~~pulse~~ or preternaturally frequent
pulse is a characteristic symptom of the
former disease. Again - In not more that two
~~no discriminating~~
state of the pulse as to strength
or weakness, ~~the pulse~~ taken notice of in the history of
Dropsies by practical writers. Even its frequency
is seldom mentioned; now ~~this fact~~ I shall
say hereafter that the nature, and seat of
Dropsy can be known, and that it can be cured

V many of them are innocent from the indolence
or ignorance of their Authors, Others are mischievous
from their containing Details of Cases fabricated
to serve the purposes of interest or fame, while

It is remarkable that a
U ~~The fate of Medicine in the last particulars of these~~
Lessons of Error, is not singular. The same disposition
no less than in medicine.
to copy, has prevailed in ~~Poesis~~ poetry & painting.
The descriptions of the Seasons in England ~~was~~
from the Roman & Greek
~~many Centuries~~ were copied ~~chiefly from Virgil~~,
and Roman poets,
and Italian faces only were painted by English
Artists for many Centuries. To the pen of Mr
Thompson the British Nation is indebted for the
first correct description of ~~their~~ Seasons that was
was published, and to the pencil of our Countryman
Mr West She owes the introduction of the British
manner
Countenance upon ~~the~~ Canvass. In like most of
the histories of diseases that are contained in British
Books are taken from Greek & Roman Authors.
Sydenham first atchieved in medicine what
Thompson and West effected in poetry & painting.
His example has been imitated by Huxham, Pringle=

only by a constant reference to the Different
States of the pulse.

It were to be wished, ~~that~~ there were no
Other objections to medical books than those
which have been mentioned. But ~~no~~ justice to
this part of my subject requires me to add, that
many of them are ~~worthless~~ mere collections from
containing nothing but transcripts of ~~former~~ have
common facts and opinions that had been
been bandied through a thousand pages. &
Diversified only by novelty in their arrangement
or phraseology. ~~Many of them are incorrect~~
Cleghorn, and Tillary with Lunds. These illustri-
ous men may justly be ~~compared~~ considered as
constantly ~~administering~~ offering this invaluable
writings ~~of~~ for the benefit of mankind upon that
part of the altar of nature which is appropriated to
the Science of medicine.

The 3: mode of acquiring a knowledge of the
practice of ~~physic~~ is medicine, is by becoming a pupil
~~the practice~~ of some public medical institution,

or of a private practitioner of physic. In one or both these ways only can be a physician be completely educated. The business of a Student of medicine in either of the above situations will consist in the first place in ~~Compounding~~ preparing medi= =cines for the Sick. ~~He~~ In order to become perfectly acquainted with them he should make up the compounds, such as tinctures, distil= =ments, ~~and~~ powders and masses of pills from which the prescriptions are prepared. By this individual means he will acquire a ~~knowledge~~ knowledge of the sensible qualities ~~of~~ virtues & doses of medi= =cines which will never pass out of his mind. 2 In the situations that have been mentioned, he will have access to sick people and thereby be= =come intimately acquainted with the causes, Symptoms and grades of diseases. For this pur= =pose it will be necessary for him to perform certain offices to the Sick, without which he will seldom

be permitted to visit them, and from which the principal part of his knowledge will be derived.

These offices are Bleeding; applying & dressing blisters, ~~giving injections~~ & sitting up with the sick. —

In the act of bleeding a Student will have an opportunity of perceiving the effect of the lop of blood upon the strength of a patient, upon his pulse, his pains, his tongue, his skin, his stomach, his bowels and even his mind. — He will discover the form of his disease by the form and color of the stream of blood which issues from a vein, and by the greater, or less promptness with which the orifice heals from which the blood has been discharged.

~~On the~~ ~~Dressing of the~~

In dressing blisters he will discover their influence upon the head, the stomach & the bowels &

the Skin. He will perceive that there is a certain state of excitement in the Skin in which they rise most readily, and he will be able to form a tolerable judgment of the nature & duration of the disease by the quality of the fluid that is discharged from them. He will in repeating the dressings of them, he will be able to tell whether the disease be in an increasing or declining state, and he will learn to regulate his prescriptions, by their different appearances when he enters upon the practice of medicine.

In administering injections the Student of Medicine will perceive the sympathy of the bowels with the whole System - he will discover the feeble sensibility of the upper bowels compared with the stomach, to heat, cold and bitter remedies, and in certain diseases of the intestines he will observe now and then a proof of their inverted motions by a rupture of the bowels, or by its being absorbed as it were by the bowels.

A Physician thus taught in his pro-
-fession, will differ widely in his practice
from one who has acquired all his
knowledge from lectures & books,
or by walking hastily through a hospital.
He will not throw a stone at a Vulture
at a disease. He will at once
close upon it, and from his well
canned knowledge of its weak parts, he
will seldom fail of obtaining a Victory over it.

In a word. Gentlemen I would as soon
expect a young man would learn to swim
by hearing a lecture, or reading a treatise upon
that Art without going into the Water, as
a Student of medicine become a physician
& in any other way than by performing all
the Offices I have mentioned to Sick people.

In sitting up with sick people he will observe the position of the body, the motions of the limbs, the state of the ~~eyes and countenance~~ pulse and the skin and above all the state of ~~his~~ the eyes & countenance, in sleep, from which he will be able to find out many things in the ~~that~~ creature and tendency of diseases which cannot be discovered in the waking state.

It may be said, all the knowledge ~~he~~ acquired in the ways I have recommended, may be met with in books, or picked up from conversing with nurses. from lectures, but this is by no means the case, — and if it were, it would seldom be recollected long enough to be useful to you. The more ~~I~~ knowledge passes through in order to ~~losing~~ the mind, the longer it will be retained. Whilst lectures and books convey it only through the avenues of the ears, and the eyes, such an intercourse with sick

V By means of so many different accounts of im=
=pression acting ~~upon the~~ at the same time
upon the mind, a physician is formed as it
were in an insensible manner. From this
exact knowledge of the morbid states of the system,
and of the preparations and doses of medicines
thus obtained, he acquires apparently such
an empire over ~~diseases~~, the functions of the
body, that diseases and medicines seem to
obey him. But this is not all. =

people as I have described, conveys it through
every sense of the body. — We see the countenance
of — we hear the tone of this voice, we
handle the [illegible] become familiar with the heat & cold,
[illegible], the comparative moisture & dryness of
this skin by the sense of touch, — we smell
this breath, and the other excretions — and
in some instances we taste their sweats By
this with which advantage. [illegible] currents
of [illegible] acting upon the mind at the same time,
a physician is formed as
of impressions it were, [illegible] this
it has been said
from the effects of habit a cutlour maker
becomes a button, and a buckle maker
a buckle in some of the manufacturing towns from
in Great Britain; In like manner a similar
in [illegible]. natural
intercourse with sick people, a physician
as it were
becomes a medicine. He is is so completely
and promptly accommodated to in mind &

V There is a reason for this conduct which operates with peculiar force in this country. From the difference ~~in the~~ which ^ our climate, Diet, and manners impose upon ^ Diseases, from those of Great Britain and other foreign countries, it will be unsafe ~~to~~ implicitly to follow their Writers, and as yet we have not a sufficient number of practical publications in america to supply their place. In this state of medicine there is nothing left for the Student, but to become his own teacher and ~~expand all the faculties of his mind, and~~ to ~~Observe and think and act for himself~~ rely ^ other upon the resources of his mind. ^ exclusively ~~the~~ upon the

body to ~~the~~ the changes & Symptoms of Diseases,
that ~~of~~ his very presence in a Sick room
is a remedy for them. From his name
inspires vigor, ~~hope~~, and Confidence into the
minds of his patients, ~~depending friends~~, and thereby often cures this
~~bodily~~ Diseases. — In an eulogium upon the late Duke of York
It was said ~~after~~ ~~late Britain~~ Sir
John Moore that he "lived with his troops."
In this way he acquired his consummate
military knowledge, and from this source he
~~became~~ Derived that stock of merit
and fame that drew tears from a whole
nation when he fell. In like manner if
a ~~physicians wishes~~ Student of medicine wishes
to be at the head of his profession, to be honoured
while living, and lamented when dead, he
must live among sick people.

Let it not be said that a Student of
medicine will Degrade himself ~~by professing~~

V From the Writings of Hippocrates &
Sydenham it would seem they were
not only good Apothecaries, but excellent
Cooks & Nurses, and it was probably by
combining those Characters with that
of a Physician, that they became
such great benefactors to the health &
lives of their fellow Creatures.
. But further —

~~the offices I have mentioned~~ into the humble condition of an Apothecary or a Nurse ~~of~~ by performing the ~~humble~~ offices I have mentioned. in a physician's
There is no dishonor ~~in~~ living a good apothecary, on the contrary, ~~they is~~ both honor and profit in it. The grands of Cullen, Fothergill, Hughson ~~Hughson~~ Thick and Watson ~~all~~ ~~papid thro' an apothe-~~ ~~-caries shop~~ were familias for many years with the pestle and mortar, the lancet & the other instruments for ~~attending~~ relieving the distresses of sick people before they entered upon the higher studies and duties of the profession ~~rowed by them~~ of medicine. ~~in which they all because the~~ ~~persist easily essence of be~~ ~~-rasped~~. As far as my Observations have extended, I do not know an instance of a ~~to~~ physician any where who has arrived ~~at~~ eminence in his profession, who has not passed thro' an apothecaries shop

on his way to ~~his~~ it ~~elevation to it. Weston,~~
~~Lott the Watchmaker, Cooper, Horsfield~~
among the graduates in our University, ~~the~~
Waters, ~~the~~ two Watchmakers, Cooper, Horse-
=field, and several others, who might be
named occupy the first rank for practical
knowledge in medicine, and ~~these~~ ~~all~~
all ~~these~~ spent five or six years in perfor-
=ming ~~all~~ the duties of Apothecaries in the
Pennsylvania hospital. Indeed so far is
a practical knowledge of those duties from being disreputable,
that to be ignorant of them is disgraceful
to a physician, if that title can be justly
applied to ~~such a person~~ him. A plain
farmer in England one rambled into a
public room, where he saw three gentlemen
clad in the robes which characterize the
Church, the Army & the bench of that Country.

Struck with their appearance he cried out,
"See there a minister of the gospel, a soldier,
and a lawyer sitting together!" "You are mis-
=taken (said a person who heard his speech).
The man whom you suppose to be a minis=
=ter of the gospel is a bishop, - the man whom
you suppose to be a soldier, is a general, &
the man whom you suppose to be a
lawyer is a judge." "Ah! my poor country
said the former what will become of you
when you are in the hands of a bishop
who is no minister of the gospel, of a general
who is no soldier, and of a judge who is no
lawyer". With equal propriety may we say,
what will become of the health & lives of the
citizens of the United States, should they be
committed to the care of physicians who

lessen the expenses of Sickness to our
patients, and at the same time, encrease,
~~thus~~ in a moderate Degree, the profits of our
~~Labours in Attending upon~~ Attendance upon them. It was
in part to answer these purposes, and to save
themselves from greater evils, that the
Physicians have lately been obliged to resort to
the Duties of the Apothecary in many
parts of Great Britain. In so ~~doing~~ doing
they =

are not Apothecaries?

There remains one more reason to be no-
=ticed in favor of combining the duties of the
Apothecary with the physician, and that
it will prevent the profits of our
profession being divided with men who are
not entitled to them, and thereby lessen the expenses
of sickness to our patients. This has of late years
become so much the case in Great Britain in
that physicians have been compelled to
many places to lay aside all the dramatic
paraphernalia of their profession, and to
resort to the duties of the apothecaries in order
to procure their dinners. ~~In this, they~~
~~of Dr Gregory of Edinburg having attended the~~
~~learn wisdom by~~ ~~their own Conduct for~~
=lowe acted ~~writers~~ wisely, for it is a fact,
the greatest part of the profits of ~~the~~ our
profession are derived from services which an
~~the~~ apothecary, or even an experienced
nurse

is as able to perform as the most skilful physician.

All that has been said in favor of studying the ~~history~~ & Cure of diseases ~~medicine~~ by means of an intercourse with sick ~~n~~ applies with equal force to the study of surgery and midwifery. — The fingers must aid the eyes and the ears in acquiring a knowledge of them. Say not they are unnecessary branches of a medical education. — They form a part of ~~that Circle of~~ the great circle of medicine and ~~what has upon the practice of physic~~ ~~a physician~~ the sciences of ~~medicine~~ practice, ~~reflect so~~ large portions of light upon the practice of physic, ~~and so intimately connected as all the objects~~ ~~of both of these that a~~ with the knowledge ~~and Cure of diseases~~, that a man cannot be a physician who is ignorant of them. Say not further — that you do not intend to practise them. Your lot may be cast into ~~n~~ situations in which you may have no election upon this Subject, and if this should not be the case, humanity may

now & then make it necessary to save your ~~profs~~ moral as well as your profesional character. There is no national Vanity in admitting the ~~advantages~~ ~~the~~ proofs ~~which~~ ~~record of the~~ given ~~cations~~ of Europe have ~~recorded to the~~ State of ~~medicine in~~ ~~publishd of~~ other improving publish'd in several European countries of the improving State of Medicine in the United States. ~~I describe~~ they are to be described chiefly to the strictly true, and they are to be described chiefly to the influence of luxury, not having as yet dispel=
=led the early and natural Union of the professions of physic, Surgery & midwifry in this Country. —

While I thus urge the necessity of cultiva=
=ting a familiarity with diseases by attending to public or private practice, do not suppose I wish to lessen your diligence in reading & attending lectures. On the Contrary, ~~they will be the spirit~~ you in ~~profitting by your attendance upon~~ permit me to recommend each of them to you

in the ~~strongest~~ terms. They will ~~mentally point~~
render your
~~Attendance~~ upon Sick people more useful to
you by Directing your attention to Objects that
might otherwise escape your Notice, and will
them
serve to correct mistakes ~~to~~ which from
Observation
~~sometimes~~ does not always exempt the ~~stu-~~
=dent from. ~~The~~ mistakes ~~danger~~ to which you will
exposed from reading and Attending lectures will
~~be~~ in like manner be corrected by your fami=
=liarity with Diseases. — You will perceive the dif=
=ference between the descriptions of
Disease in books, and as they occur in real
life. You will particularly be struck with
their ~~want of~~ Dissimilarity, ~~to the Diseases of~~
~~the United States~~ as described ~~in~~ by British
and by East & West India Authors, to the
Diseases of the United States.

I have thus gentlemen briefly pointed out
a mode of studying medicine which I conceive
to be best suited to promote all the benefits and
blessings our profession is capable of conferring
upon mankind. —
It remains now only to mention the time
that will be necessary to acquire such a
knowledge of it as will qualify a young man
to practise it with safety to his patients &
honor to himself. —

Before a review of the various branches of medicine which
it is necessary for a Student to be acquain-
-ted, and from the slow and gradual manner
in which knowledge can only be obtained
in some of them, it would seem
one half of an ordinary
life would scarcely be sufficient for that pur-
-pose. However imperfectly lectures teach,
two or three Courses of each of them

study of the
V ~~But~~ It is common to recommend the works
of the Ancient Greek and Roman Fathers
in medicine, but this is much less necessary
now than it was an hundred years ago,
since nearly every thing valuable in them has
been translated and quoted in modern books.
The writings of Hippocrates & Celsus may however
still be read with advantage not so much upon
account of the knowledge that is still retained in them, as
as to acquire the happy art of correctness in ob-
serving, and fidelity in recording the Symptoms in Dis-
eases. It will be useful for a Student to

should be attended, by every student of medicine,
nor should the errors, or even falsehoods
contained in medical books prevent his
reading them. V ~~Those author~~ the most errone-
=ous of them there will be found many
useful truths. ~~that the~~ Such of the Grecian & Roman
fathers in medicine as are translated into En=
=glish language should be read by them pas=
=sively all the works of ~~Hippocrates~~ ~~&c~~
~~should~~ ^ make himself acquainted with anci=
=ent and modern systems ^ ~~and~~ ^ above all,
of medicine, but every treatise upon Epidemics
he should read ~~to all the practical works~~ ^ whether
ancient and modern
to which he can have ^ any ~~is of any~~ language.
In the most erroneous of these
written in his own or foreign countries.
works he will find many useful truths, ~~but~~ and
the he
even ~~this~~ ^ errors ^ will ~~soon~~ discover in
will sometimes
them ~~will~~ ^ suggest ~~more and there~~
~~an useful idea may~~ be found to be truths

V a young man educated & graduated in
less time, is for the most part an abortion
in medicine. —

out of this proper ~~time~~ plans. From ~~Ten~~ years will barely be sufficient ~~to~~ to accomplish what has been mentioned, three of which should be spent in attending the practice of a ~~private~~ private physician, & of a public hospital. I am aware that ~~to a great extent~~ he may answer in two or three years to all the questions that are usually asked at an examination for the degree of Doctor of medicine, for these are confined wholly to the lectures which he has attended, But is the knowledge contained in these lectures all that should be known by a physician? By no means; and however strange it may sound, I think I have observed in some instances that in proportion as candidates have answered correctly upon the subjects of the lectures, they have been deficient in reading & practical

V Shoemaker, or the taylor that undertakes
to exercise his trade,

knowledge. This is the natural consequence of
last two or three years application to the study
of medicine. A longer term of study would have
their attainments equally respectable and
render them equally correct in that kind of
knowledge that is derived from books,
and an intelligent attending upon sick people.

Where is the propriety that candidates for
the practice of physic or surgery should be
apprenticed for five or six years? and
is the same time spent in learning all the fundamental and
practical branches of our Science that are necessary
to cure diseases? Is health less valuable than
a pair of shoes, and is life less precious than
a suit of cloathes?

Many a Spirit of rivalship between students,
in our Medical Universities, never permit their

v and who are wholly ignorant of the
practical ~~& mechanical~~ & marginal parts of medicine, &
and even of the sensible qualities of the most
common Articles of the Materia Medica,

honors to be prostituted, ~~and~~ by conferring them upon men whose knowledge consists only in words and definitions, but if in spite of the Dictates of reason, & patriotism, & of humanity ~~Laws of this State protect the lives of our and of Innocence~~ = this ~~citizens from the ignorance~~, ~~let this~~ should ~~leaves~~ be done, — Gracious Heaven! arrest ~~this~~ their murdering hands, and save, oh! save our citizens from such ~~half demons~~ exterminators of the human race! —

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